

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D205-541 REV. J AND  
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D205-541 REV. 4, AND  
ALL SUBSEQUENT REVISIONS  
REF. TCCA STC: SH96-120  
REF. FAA STC: SR00696NY  
REF. EASA STC EASA.IM.R.S.01242

## 1.0 PURPOSE

To provide instructions for converting a D205-541-043/-044 basket to a D205-541-045/-046 basket, and to provide instructions for the installation of D3725-1 Hoops on a -043/-044 basket.

## 2.0 PARTS LIST



Qty -011	Qty -012	Qty -013	Part Number	Description
X			DSI 9505-011	Basket Conversion Kit, LH
	X		DSI 9505-012	Basket Conversion Kit, RH
		X	DSI 9505-013	Basket Conversion Kit, Hoops Only
1			D3713-041	Lid Assembly, LH
	1		D3713-042	Lid Assembly, RH
3	3		D3748-1	Hinge Half
2	2	2	D3725-1	Hoop
2	2	2	D3757-1	Blanking Plate
1	1		D2258-300	Placard (Pre-installed on D3713-041/-042)
		2	D5198-1	Rib
		2	D2232-3	Hinge Plate
6	6	6	AN3-11A	Bolt
12	12	12	NAS1149D0363J	Washer (or AN960JD10)
6	6	6	MS21042L3	Nut (or MS21042-3)
3	3		MS21042L4	Nut (or MS21042-3)
3	3		AN4-20A	Bolt
6	6		NAS1149D0463J	Washer (or AN960JD416)
6	6		D3723-1	Bushing

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BY:   
D. SHEPHERD (DE # 02)

DATE: 14.12.10  
CERT. NO.: SH96-120  
ISSUE NO.: 3

B	ADDED -013. ADDED MODIFICATION INSTRUCTIONS FOR -013. ADDED SHEETS 6 AND 7	CC	14.12.10
A	NEW ISSUE	RF	14.09.03
REV.	DESCRIPTION	BY	DATE
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MFG. APPR.	N/A	DSI 9505	SHEET 1 OF 8
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### 3.0 PROCEDURE (INSTALLATION OF DSI 9505-011/-012 CONVERSION KITS)



1. Remove and retain D2332-041 Prop Arm and attaching hardware.
2. Remove and retain D2530 Handle, D2535 Springs, D2537 Bushings, and attaching hardware.
3. Separate lid from hinge on D205-541-043/-044 by removing 2 x AN4-7A bolts.
4. Trim existing hinge pieces flush with the top frame of the basket base as shown in Figure 1
5. Break tack welds between mesh and frame in top of basket base as shown in Figure 1
6. Cut basket down by 4.00" (102mm) per Figure 1.
7. Trim frame for installation of basket hoops per Figure 1.
8. Deburr stubs and basket base top frame.
9. Install D3725-1 Hoops and stubs. Tig weld stubs and hoops to existing basket base top frame using ER316L filler rod per AWS D17.1 2001 Class "A" per Figure 2.
10. Tig weld base top frame to existing basket base using ER316L filler rod per AWS D17.1 2001 Class "A" per Figure 2.
11. Trim mesh to hoop contour and tack weld every available strand to new frame.
12. Locate D3713-041/-042 Lid Assembly on modified base per Figure 3 Use 0.20" (5mm) thick spacers between the lid and the modified base for proper positioning. Position 3 x D3748-1 Hinge Half on modified base and weld in place using 0.125" (3mm) thick spacers between upper and lower hinge half per Figure 3.
13. Transfer Ø0.257 (F drill) hinge holes in D3713-041/-042 Lid Assembly to D3748-1 Hinge Halves.
14. Touch up paint on modified base per ICA-D205-541.
15. Attach D3713-041/-042 Lid Assembly to modified base using AN4-20A bolts and associated hardware per Figure 4.
16. Install D2332-041 Prop Arm and attaching hardware per Figure 4.
17. Install D2530 Handle, D2535 Springs, D2537 Bushings, and attaching hardware per Figure 5.
18. Install D3757-1 Blanking Plates and attaching hardware per Figure 6.
19. Lift and drop lid to ensure lid closes properly on modified base.
20. Install a placard (not provided) next to the Product ID label to indicate "Basket has been modified to D205-541-045/-046 configuration per DSI 9505".
21. If desired, the D205-541-047/-048 steps can be installed on the modified basket base per section 3.2 of D205-541 Rev. G, or later approved revision.
22. Modified basket can be re-installed on the aircraft per section 3.1 of D205-541.
23. Update aircraft weight and balance with information provided in Section 4.0 of D205-541.

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**B 4.0 PROCEDURE (INSTALLATION OF DSI 9505-013 CONVERSION KIT)**

1. Remove and retain D2332-041 Prop Arm and attaching hardware.
2. Separate lid from hinge on D205-541-043/-044 by removing 2 x AN4-7A bolts.
3. Cut frame for installation of basket hoops per Figure 7. The cut line (Figure 7, Dimension "X") should be no less than 6 inches from the inboard edge of the basket top frame to ensure there is enough space to install the D3725-1 Hoops. Cut basket frame to facilitate the re-welding of the basket mesh to the frame.
4. Carefully, break tack welds between mesh and and hinge plate per Figure 7. Remove and discard hinge plates.
5. Deburr sharp edges.
6. Determine the correct length of rib required (Figure 8, Dimension "L"), and trim the D5198-1 Rib to suit.
7. Install D3725-1 Hoops, and trimmed D5198-1 Ribs. Tig weld the ribs and hoops to the existing basket base top frame using ER316L filler rod per AWS D17.1 2001 Class "A" per Figure 8.
8. Tig weld base top frame to existing basket base using ER316L filler rod per AWS D17.1 2001 Class "A" per Figure 8
9. Trim mesh to match hoop contour and tack weld every available strand to new frame.
10. Weld two new D2232-3 Hinges Plates to the modified basket base to replace the hinge plates removed at step 4.  
Note: Prior to welding, temporarily install the basket lid to line up the new D2232-3 Hinge Plates. Ensure that the hinge plates are correctly aligned, and that the basket lid opens and closes properly on the modified base.
11. Touch up paint on modified base per ICA-D205-541.
12. Install D3757-1 Blanking Plates and attaching hardware per Figure 6.
13. Modified basket can be re-installed on the aircraft per section 3.1 of D205-541.

**5.0 WEIGHT AND BALANCE**



The installation of the DSI 9505-013 kit has a negligible effect on Weight & Balance

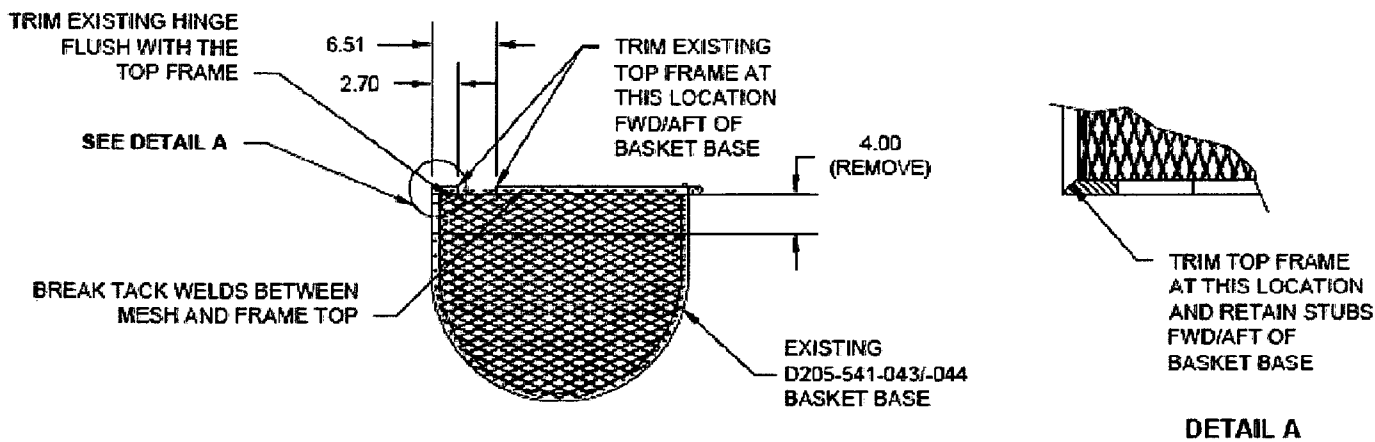
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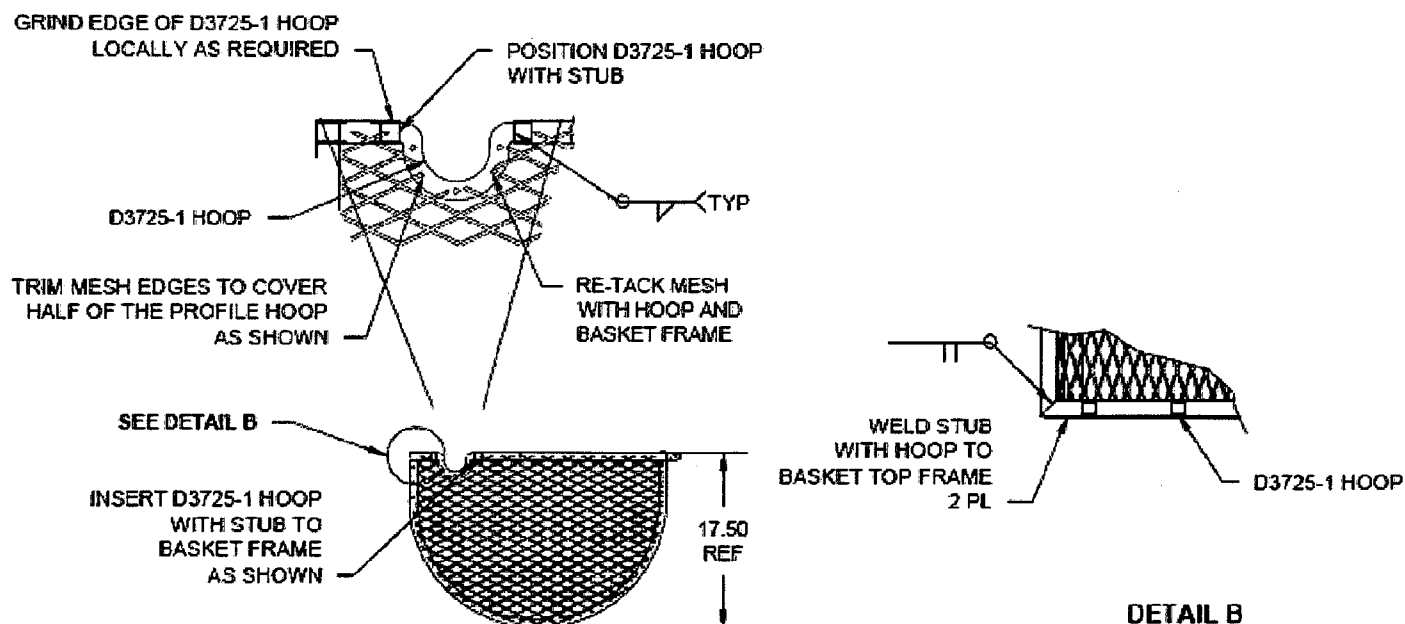
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**FIGURE 1. - FRAME TRIM DETAIL**



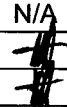

**FIGURE 2. - HOOP WELDING DETAIL**

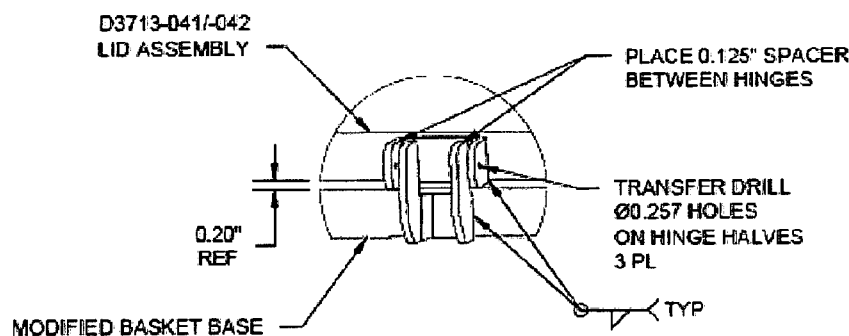
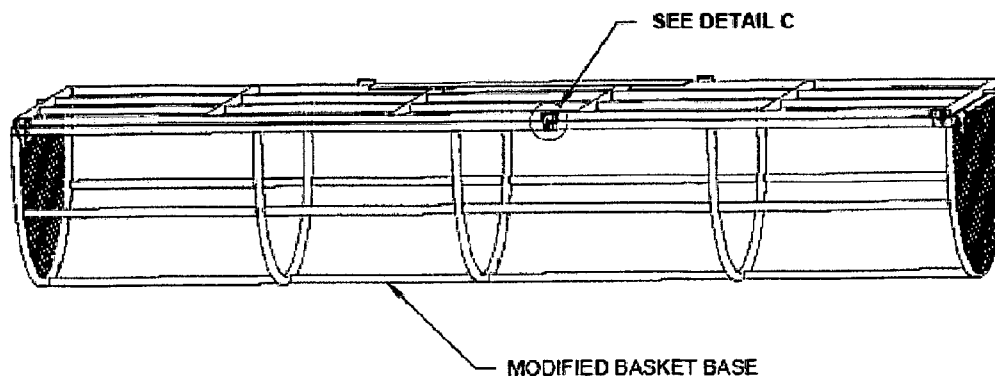
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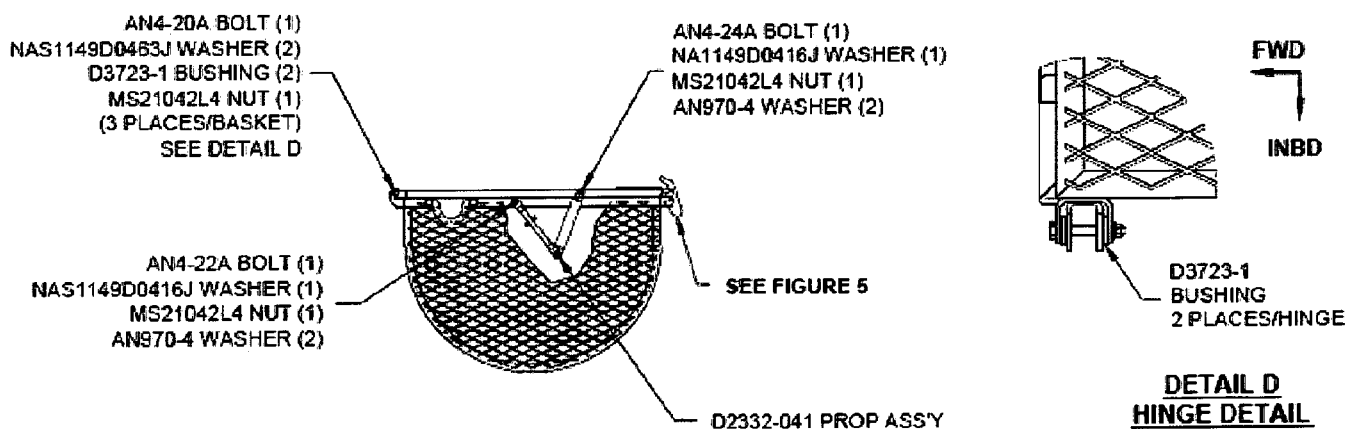
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**DETAIL C**

**FIGURE 3. - HINGE DRILLING DETAIL**  
(MESH NOT SHOWN COMPLETE FOR CLARITY)



**DETAIL D**  
**HINGE DETAIL**

**FIGURE 4. - PROP ASS'Y & HINGE INSTALLATION**

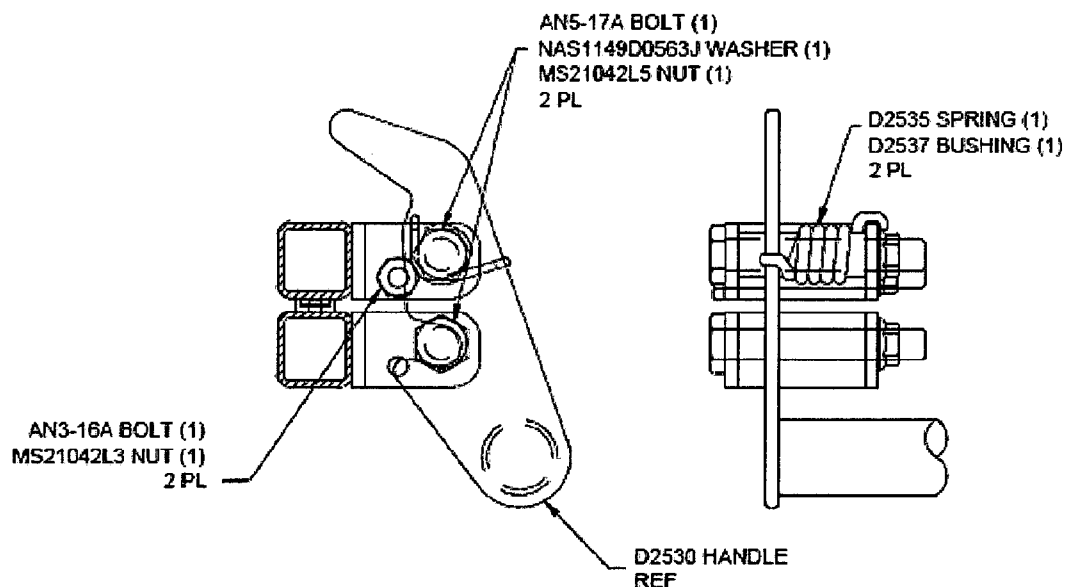
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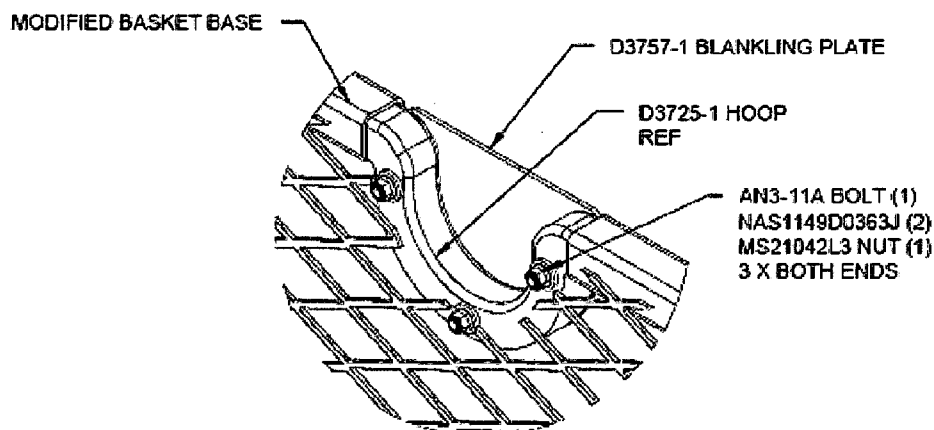
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**FIGURE 5. - LATCH INSTALLATION**



**FIGURE 6. - D3757-1 BLANKING PLATE INSTALLATION**

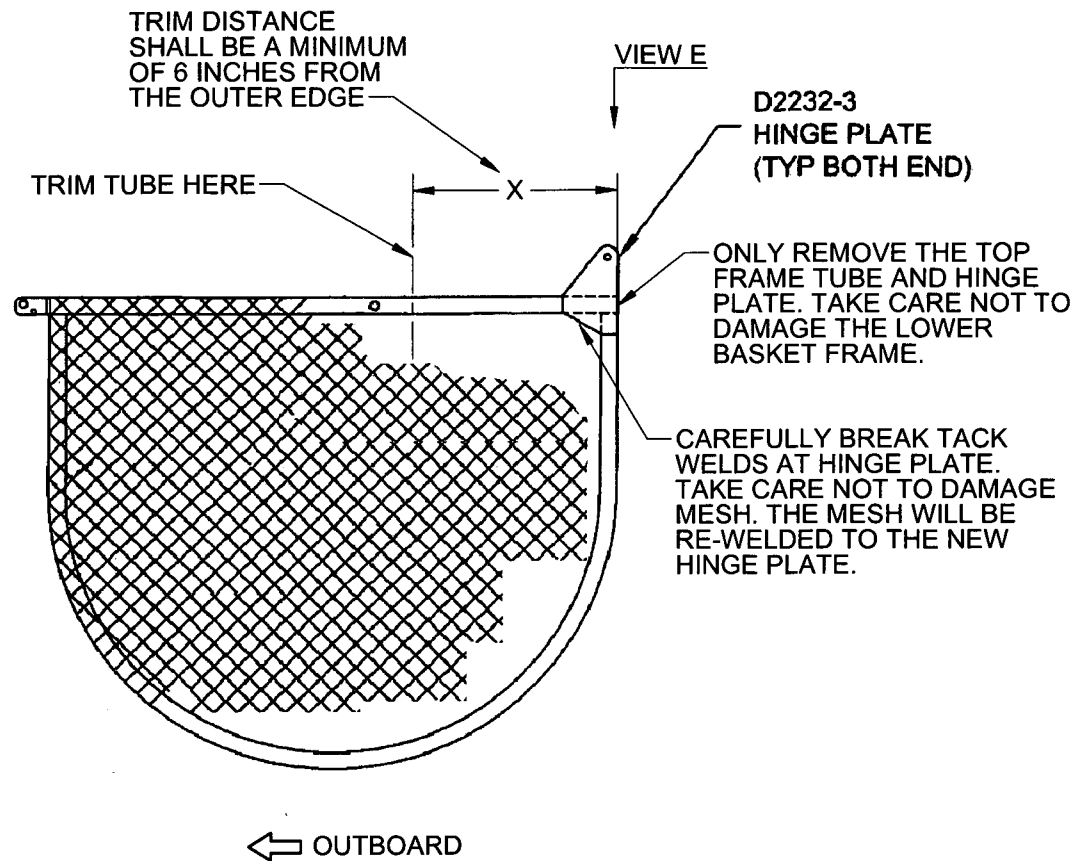
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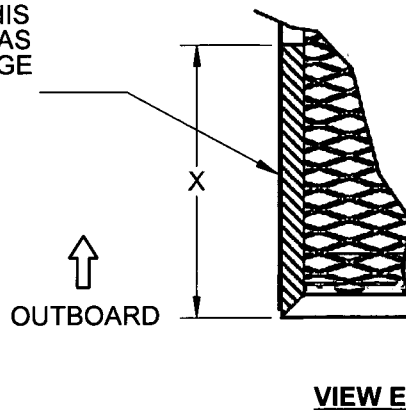
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REMOVE AND DISCARD THIS SECTION OF TOP FRAME, AS WELL AS THE D2232-3 HINGE PLATE.



**FIGURE 7 - FRAME TRIM DETAIL**

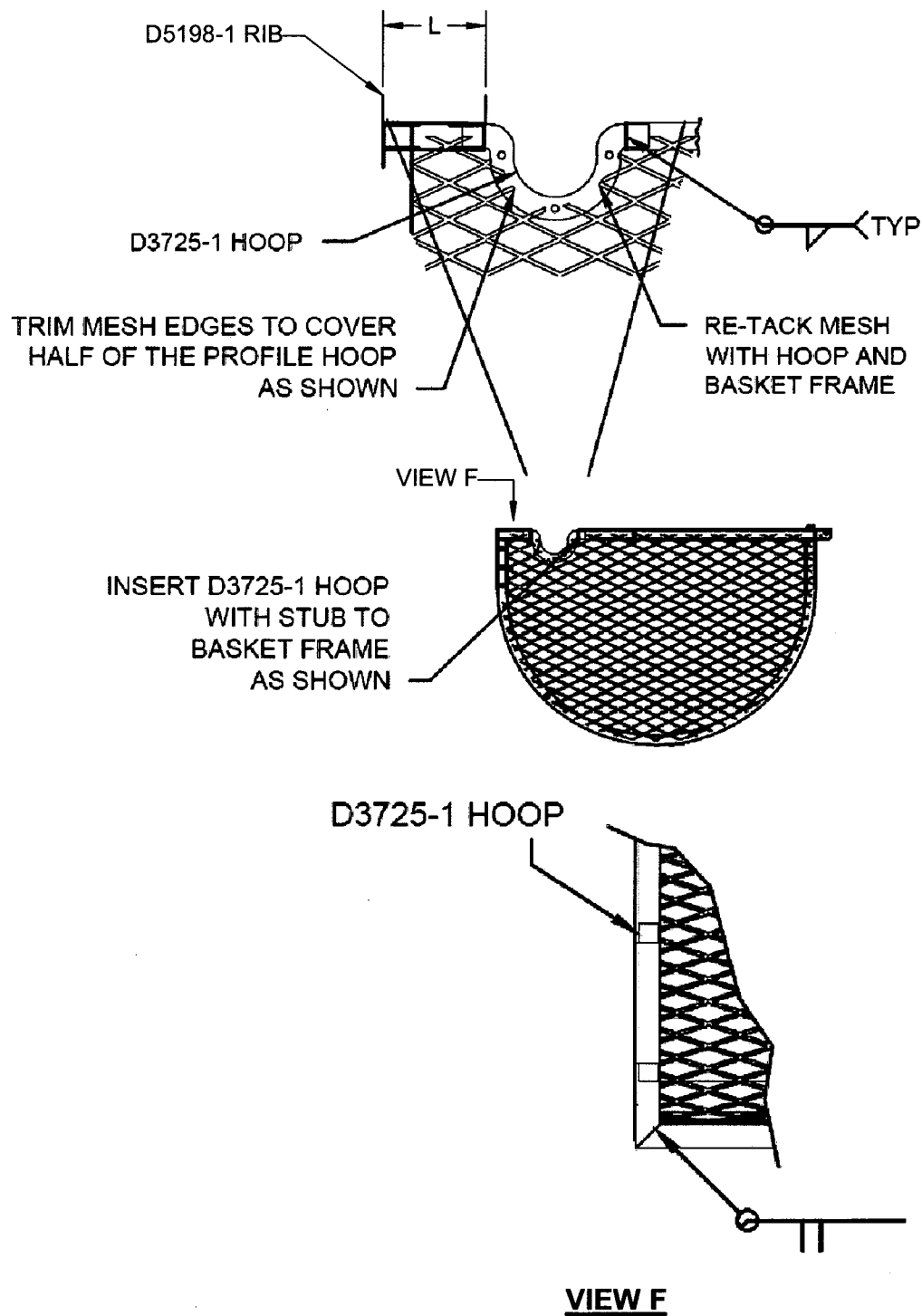
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**FIGURE 8 - HOOP INSTALLATION**

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